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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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JOSEPH P. CURTIN, L.L.C. 1469 N.W. MORGAN LANE PORTLAND, OR 97229-5291			EXAMINER PHAM, MICHAEL	
			ART UNIT 2167	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,755	Applicant(s) CHANDRA ET AL.	
	Examiner MICHAEL D. PHAM	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-18, 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. In view of the appeal brief filed on 3/7/08, PROSECUTION IS HEREBY REOPENED.

A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/John R. Cottingham/

Supervisory Patent Examiner, Art Unit 2167.

Status of claims

2. Claims 1-7, 9-18, 20-22 are pending.

3. Claims 1-7, 9-18, 20-22 have been examined.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 - 7 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watt (US Patent Application Publication 2003/0126202; hereafter Watt) further in view of Sheets et al. (US 6,816,905; hereafter Sheets).**

Claim 1:

Watt discloses the following claimed limitations:

“identifying at least one master storage image that is stored in the storage of the storage area network and that will be associated with a system user when a server is allocated to the system user;” [0046, the administrator can pick and choose from the installed software base to create a master server image. 0058, the repository manager can also install and manage instances of a SAN as well as on a server’s local attached storage. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. Accordingly, disclosing identifying at least one master storage image (0046, master server image) that is stored in the storage of the storage area network (0058, repository manager can also install and manage instances of a SAN) and that will be associated with a system user (0046, administrator) when a server is allocated to

the system user (0033, who would access, use, and/or benefit from ..dynamic server allocation and provisioning)]

“generating a plurality of replicas of each identified master storage image prior to at least one server being allocated to the system user; and” [0046, once defined, this server image can be rapidly replicated and configured using automated tools to build out images for an entire server pool. Accordingly, disclosing generating a plurality of replicas (rapidly replicated and configured) of each identified master storage image (server image) prior to at least one server being allocated to the system user (build out images for an entire server pool)]

“allocating a selected replica of the plurality of replicas of the master storage image to each server allocated to the system user.” [0094, provisioning n instances 306 of a server class 304 provides DSAP (dynamic server allocation and provisioning) system 102 with the capacity to run n servers of the specified class 304. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. Accordingly, disclosing allocating a selected replica (0094, specified class) of the plurality of replicas (0094, server class) of the master storage image (0094, 306) to each server (0094, 304) allocated to the system user (0033, user)]

Watt’s does not explicitly disclose “pre-configuring at least one identified master storage image with data and state information that is associated with a system user”.

Sheets col. 11 lines 11-14 discloses boot image software and configuration files for the second administrative group, instead of the boot image software and configuration files for the first administrative group. Col. 15 lines 8-17, reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state information associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group. Accordingly, pre-configuring (col. 15 lines 8-17, re-configuring) at least one identified master storage image (col. 15 lines 8-17, administrative group) with data (boot image software and configuration files) and state information (col. 7 lines 1-5, status information) that is associated with a system user (col. 15 lines 11-12, state associated with a particular customer account) is suggested.

Both Watts and Sheets are within the same field of endeavor as the application, namely dynamic allocation of servers. Watts suggests configuring images associated with a user. Sheets suggests pre-configuring at least one identified server image with data and state information associated with a user. It would have been obvious to apply Sheets disclosure to Watts to improve security by keeping the data separate from each user, and further to provide a method of indicating states of servers in order to improve allocation techniques. Therefore, improving performance of server allocation as a whole, and further improving security as the unique data can be kept separate by precluding intentional or unintentional access to data between different customer accounts.

Claim 2:

Watt does not explicitly disclose “de-allocating an allocated replica from the system user each time a server is de-allocated from the system user; and assigning the de-allocated replica to a pool of de-allocated replicas.”

However, Sheets discloses “de-allocating an allocated replica from the system user each time a server is de-allocated from the system user; and assigning the de-allocated replica to a pool of de-allocated replicas”. (See column 18, lines 32-45, discloses, another way of looking at how the present invention can dynamically provide hosted service across disparate accounts is to view a portion of the servers as being assigned to a pool of a plurality of virtual servers that may be selectively configured to access software and data for a particular administrative group. Further disclosing it automatically allocates one of the servers from the pool of virtual servers to that administrative group. Conversely, if the dispatch module determines that an agency group can relinquish one of its servers, that relinquished server would be added to the pool of virtual servers that are available for re allocation to a different administrative group.)

It would have been obvious to one with ordinary skill in the art to combine the method as disclosed in Watt with the de-allocating method as disclosed in Sheets et al. because the two both disclose methods that operate very similarly, but the de-allocation was simply not addressed in Watt, but is a natural extension of Watt. By moving the de-allocated replica into the pool, the server is now marked available for future use when it is needed. It is for this reason that one of ordinary skill in the art would have been motivated to include de-allocating an allocated replica from the system user each time a server is de-allocated from the system user; and assigning the

de-allocated replica to a pool of de-allocated replicas.

Claim 3:

Watt does not explicitly disclose “the pool of de-allocated replicas is configured to automatically scrub all replicas in the pool of de-allocated replicas asynchronously from de-allocation the step of de-allocation.”

However, Sheets discloses “the pool of de-allocated replicas is configured to automatically scrub all replicas in the pool of de-allocated replicas asynchronously from de-allocation the step of de-allocation” (See column 15, lines 8-14, discloses one of the significant advantages of the present invention is that the process of reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group.)

It would have been obvious to one with ordinary skill in the art to combine the method of Watt with the automatic scrub function of Sheets because of the advantage automatically clearing the unique data provides. This provides a layer of security, allowing different users to use the same equipment dynamically without having to worry about improper sharing of secret data. It is for this reason that one of ordinary skill in the art would have been motivated to have the pool of de-allocated replicas configured to automatically scrub all replicas in the pool of de-allocated replicas asynchronously from de-allocation the step of de-allocation.

Claim 4:

Watt does not explicitly disclose “the pool of de-allocated replicas is scrubbed when a number of de-allocated replicas assigned to the pool of de-allocated replicas equals a predetermined number.”

However, Sheets discloses “the pool of de-allocated replicas is scrubbed when a number of de-allocated replicas assigned to the pool of de-allocated replicas equals a predetermined number.” [See column 15, lines 8-14, discloses that one of the significant advantages of the present invention is that the process of reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group.]

It would have been obvious to one with ordinary skill in the art to combine the method of Watt with the automatic scrub function of Sheets because of the advantage automatically clearing the unique data provides. This provides a layer of security, allowing different users to use the same equipment dynamically without having to worry about improper sharing of secret data. While not specifically mentioned here, the predetermined number can be considered to be one and the replica is scrubbed by reconfiguring it for use with another user’s data. It is for this reason that one of ordinary skill in the art would have been motivated to have the pool of de-allocated replicas is scrubbed when a number of de-allocated replicas assigned to the pool of de-allocated replicas equals a predetermined number.

Claim 5:

Watt does not explicitly disclose “the pool of de-allocated replicas is automatically scrubbed by reformatting.”

However, Sheets discloses “the pool of de-allocated replicas is automatically scrubbed by reformatting.” (See column 15, lines 8-14, discloses one of the significant advantages of the present invention is that the process of reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group.)

It would have been obvious to one with ordinary skill in the art to combine the method of Watt with the automatic scrub by reformatting function of Sheets because of the advantage automatically clearing the unique data provides. This provides a layer of security, allowing different users to use the same equipment dynamically without having to worry about improper sharing of secret data. It is for this reason that one of ordinary skill in the art would have been motivated to have the pool of de-allocated replicas is automatically scrubbed by reformatting.

Claim 6:

Watt additionally discloses “each replica is a logical volume.” (0067 discloses that the SAN routing and volume assignment can be changed by DSAP system 102 thereby affecting the SAN's mapping of the server's SAN connection to a SAN volume. The way the replica is referred to here makes it clear that the replicas are logical volumes.)

Claim 7:

Watt does not explicitly disclose “the system user is one of a customer and an application”. However, Sheets discloses that the system user is one of a customer and an application. (See column 15, lines 8-14, discloses one of the significant advantages of the present invention is that the process of reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group.) It would have been obvious to one with ordinary skill in the art to combine the method of Watt with the automatic scrub by reformatting function of Sheets because of the advantage automatically clearing the unique data provides. This provides a layer of security, allowing different users to use the same equipment dynamically without having to worry about improper sharing of secret data. It is also clear that the user is referring to a customer in Sheets. It is for this reason that one of ordinary skill in the art would have been motivated to have the system user is one of a customer and an application.

Claim 12:

Watt discloses the following claimed limitations:

“a plurality of servers coupled to a storage” [0046, repository manager is responsible for securely and efficiently provisioning and managing server images on storage devices within data centers. And figure 2 elements 212, 218, and 210. Accordingly, disclosing a plurality of servers coupled to a storage]; and

“a storage provisioning device coupled to the servers and allocating at least one server and a portion of the storage to a system user, the storage provisioning device identifying at least

one master storage image that is stored in the storage and that will be associated with a system user when a server is allocated to the system user” [0094, provisioning n instances 306 of a server class 304 provides DSAP (dynamic server allocation and provisioning) system 102 with the capacity to run n servers of the specified class 304. 0046, the administrator and pick and choose from the installed software base to create a master server image. and 0058, in an alternate embodiment, repository manager can also install and manage instances of a SAN as well as on a server’s local attached storage. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. 0101, most parts of a server’s system image are read only and identical from one server to the next. Accordingly, disclosing a storage provisioning device coupled to the servers and allocating at least one server and a portion of the storage to a system user (0094, DSAP), the storage provisioning device identifying at least one master storage image (0046, master server image) that is stored in the storage (0058, SAN) and that will be associated with a system user (0033, user).]

“the storage provisioning device further generating a plurality of replicas of each identified master storage image prior to at least one server being allocated to the system user” [0046, once defined, this server image can be rapidly replicated and configured using automated tools to build out images for an entire server pool. Accordingly, disclosing the storage provisioning device further generating a plurality of replicas (rapidly replicated and configured) of each identified master storage image (server image) prior to at least one server being allocated to the system user (build out images for an entire server pool)]; and

“allocating a selected replica of the plurality of replicas of the master storage image to each server allocated to the system user.”[0094, provisioning n instances 306 of a server class 304 provides DSAP (dynamic server allocation and provisioning) system 102 with the capacity to run n servers of the specified class 304. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. Accordingly, disclosing allocating a selected replica (0094, specified class) of the plurality of replicas (0094, server class) of the master storage image (0094, 306) to each server (0094, 304) allocated to the system user (0033, user)].

Watt does not explicitly disclose “at least one master storage image being pre-configured with data and state information that is associated with a system user”.

Sheets col. 11 lines 11-14 discloses boot image software and configuration files for the second administrative group, instead of the boot image software and configuration files for the first administrative group. Col. 15 lines 8-17, reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state information associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group. Accordingly, at least one master storage image (col. 15 lines 8-17, administrative group) being pre-configured (col. 15 lines 8-17, re-configuring) with data (col. 11 lines 11-14, boot image software and configuration files) and state information (col. 7 lines 1-5, status information) that

is associated with a system user (col. 15 lines 11-12, state associated with a particular customer account).

Both Watts and Sheets are within the same field of endeavor as the application, namely dynamic allocation of servers. Watts suggests configuring images associated with a user. Sheets suggests pre-configuring at least one identified server image with data and state information associated with a user. It would have been obvious to apply Sheets disclosure to Watts to improve security by keeping the data separate from each user, and further to provide a method of indicating states of servers in order to improve allocation techniques. Therefore, improving performance of server allocation as a whole, and further improving security as the unique data can be kept separate by precluding intentional or unintentional access to data between different customer accounts.

Claim 13-17:

Regarding claim 13-18, Watt in view of Sheets disclose the storage area network as cited above for claims 2-7 respectively.

6. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watt (US Patent Application Publication 2003/0126202; hereafter Watt) further in view of Microsoft Developer Network CD, CD-Rom 1996 April. C. 1 (hereafter MSDN).

Claim 9:

Watts discloses the following claimed limitations:

“identifying at least one master storage image that is stored in the storage of the storage area network and that will be associated with a system user, each master storage image including both a read-only data portion and a data portion;” [0046, the administrator can pick and choose from the installed software base to create a master server image. 0058, the repository manager can also install and manage instances of a SAN as well as on a server’s local attached storage. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. 0101, most parts of a server’s system image are read-only and identical from one server to the next. Accordingly, disclosing identifying at least one master storage image (0046, master server image) that is stored in the storage of the storage area network (0058, repository manager can also install and manage instances of a SAN) and that will be associated with a system user (0046, administrator), each master storage image including both a read-only data portion and a writable data portion (0101, most parts of a server’s system image are read only and identical from one server to the next).]

“generating a read-only copy of the read-only data portion of each master storage image;” [0095, an independent instance contains an actual physical copy of all files in the master image, with the configuration files updated to provide a unique personality. The independent instance is stored on centralized storage and can be run by any available server. 0101, most parts of a server’s system image are read-only and identical from one server to the next. Accordingly,

disclosing generating a read-only copy of the read-only data portion of each master storage image (independent instance).]

“sharing the read-only data copy of the read-only data portion of each master storage image across the plurality of servers;” [0097, the remainder of the image is shared with other dependent instances by referencing the read-only snapshot containing the original files. 0101, most parts of a server’s system image are read-only and identical from one server to the next. In DSAP systems, servers can share a single copy of the read-only portions of images stored on NAS or SAN. Accordingly, disclosing sharing the read-only data copy of the read-only data portion of each master storage image across the plurality of servers (dependent instances)]

“allocating the read-only copy of the read-only data portion of a selected master storage image to each server allocated to the system user; and” [0097, the remainder of the image is shared with other dependent instances by referencing the read-only snapshot containing the original files. 0101, most parts of a server’s system image are read-only and identical from one server to the next. In DSAP systems, servers can share a single copy of the read-only portions of images stored on NAS or SAN. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. Accordingly, disclosing allocating a the read-only copy of the read-only data portion of a selected master storage image to each server (0097, dependent instances) allocated to the system user (0033, user)]

However, Watts does not explicitly disclose, “allocating a separate writable data volume of the writable data portion of the selected master storage image to each server allocated to the system user” and “writeable data portion”

On the hand, MSDN page 24 discloses a master copy of a file without placing a local copy of the file in your working folder. Further disclosing to edit a file, you must check it out of the visual sourcesafe database. The check out command creates a writable copy of the file from the project in your working folder. A check out is generally exclusive, that is no one else can check out a file that you have checked out. Visual SourceSafe indicates who has a file checked out in the user column of the file pane. Accordingly, disclosing allocating a separate writable data volume of the writable data portion of the selected master storage image (master copy) to each server (creates a writeable copy) allocated to the system user (you).

Both MSDN and Watt disclose permissions of data. Watt discloses that most parts of a server's system image are read-only and identical from one server to the next. One of ordinary skill in the art would easily recognize that file permissions consist of read and write permissions. It would have been obvious to a person of an ordinary skill in the art to have applied MSDN's disclosure above, to the system of Watt for the purpose of allowing users to edit a master copy. Thereby allowing a user to further customize a master copy.

Claim 20:

Watts discloses the following claimed limitations:

“a plurality of servers coupled to a storage; and” [0046, repository manager is responsible for securely and efficiently provisioning and managing server images on storage devices within data centers. And figure 2 elements 212, 218, and 210. Accordingly, disclosing a plurality of servers coupled to a storage.]

“a storage provisioning device coupled to the servers and allocating at least one server and a portion of the storage to a system user, the storage provisioning device identifying at least one master storage image that is stored in the storage of the storage area network and that will be associated with a system user, each master storage image including both a read-only data portion and a writeable data portion,” [0094, provisioning n instances 306 of a server class 304 provides DSAP (dynamic server allocation and provisioning) system 102 with the capacity to run n servers of the specified class 304. 0046, the administrator and pick and choose from the installed software base to create a master server image. and 0058, in an alternate embodiment, repository manager can also install and manage instances of a SAN as well as on a server's local attached storage. 0033, the terms user, entity, administrator, and the plural form of these terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. 0101, most parts of a server's system image are read only and identical from one server to the next. Accordingly, disclosing a storage provisioning device coupled to the servers and allocating at least one server and a portion of the storage to a system user (0094, DSAP), the storage provisioning device identifying at least one master storage image (0046, master server image) that is stored in the storage of the storage area network (0058, SAN) and that will be associated with a system user (0033, user), each master storage image including both a read-only data

portion and a data portion (0101, most parts of a server's system image are read only and identical from one server to the next).]

“the storage provisioning device further generating a read-only copy of the read-only portion of each master storage image” [0095, an independent instance contains an actual physical copy of all files in the master image, with the configuration files updated to provide a unique personally. The independent instance is stored on centralized storage and can be run by any available server. 0101, most parts of a server's system image are read-only and identical from one server to the next. Accordingly, disclosing the storage provisioning device further generating a read-only copy of the read-only portion of each master storage image (0095, independent instances)]

“and sharing the read-only copy of the read-only portion of each master storage image across the plurality of servers,” [0097, the remainder of the image is shared with other dependent instances by referencing the read-only snapshot containing the original files. 0101, most parts of a server's system image are read-only and identical from one server to the next. In DSAP systems, servers can share a single copy of the read-only portions of images stored on NAS or SAN. Accordingly, disclosing sharing the read-only copy portion (dependent instances)]

“allocating the read-only copy of the read-only portion of a selected master storage image to each server allocated to the system user,” [0097, the remainder of the image is shared with other dependent instances by referencing the read-only snapshot containing the original files. 0101, most parts of a server's system image are read-only and identical from one server to the next. In DSAP systems, servers can share a single copy of the read-only portions of images stored on NAS or SAN. 0033, the terms user, entity, administrator, and the plural form of these

terms may be used interchangeably throughout herein refer to those who would access, use, and/or benefit from the tool that the present invention provides for dynamic server allocation and provisioning. Accordingly, disclosing allocating a the read-only copy of the read-only data portion of a selected master storage image to each server (0097, dependent instances) allocated to the system user (0033, user)]

However, Watts does not explicitly disclose, “allocating a separate writable data volume of the writable data portion of the selected master storage image to each server allocated to the system user” and “writeable data portion”

On the hand, MSDN page 24 discloses a master copy of a file without placing a local copy of the file in your working folder. Further disclosing to edit a file, you must check it out of the visual sourcesafe database. The check out command creates a writable copy of the file from the project in your working folder. A check out is generally exclusive, that is no one else can check out a file that you have checked out. Visual SourceSafe indicates who has a file checked out in the user column of the file pane. Accordingly, disclosing writable data portion (creates writable copy) and allocating a separate writable data volume of the writable data portion of the selected master storage image (master copy) to each server (creates a writeable copy) allocated to the system user (you).

Both MSDN and Watt disclose permissions of data. Watt discloses that most parts of a server's system image are read-only and identical from one server to the next. One of ordinary

skill in the art would easily recognize that file permissions consist of read and write permissions. It would have been obvious to a person of an ordinary skill in the art to have applied MSDN's disclosure above, to the system of Watt for the purpose of allowing users to edit a master copy. Thereby, allowing a user to further customize a master copy.

7. Claims 10 – 11 and 21 - 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watt (US Patent Application Publication 2003/0126202; hereafter Watt) further in view of Microsoft Developer Network CD, CD-Rom 1996 April. C. 1 (hereafter MSDN).

Claim 10:

Watt and MSDN disclose a method substantially as claimed.

Watt and MSDN do not explicitly disclose “de-allocating the read-only copy of the read-only data portion of the selected master image from the server to which the read-only copy was allocated when the server is de-allocated from the system user; and de-allocating the writable data volume of the writable data portion of the selected master storage image that was allocated to the de-allocated server.”

However, Sheets discloses de-allocating the read-only copy of the read-only data portion of the selected master image from the server to which the read-only copy was allocated when the server is de-allocated from the system user; and de-allocating the writable data volume of the writable data portion of the selected master storage image that was allocated to the de-allocated server. (See column 18, lines 32-45 discloses another way of looking at how the

present invention can dynamically provide hosted service across disparate accounts is to view a portion of the servers as being assigned to a pool of a plurality of virtual servers that may be selectively configured to access software and data for a particular administrative group...it automatically allocates one of the servers from the pool of virtual servers to that administrative group. Conversely, if the dispatch module determines that an agency group can relinquish one of its servers, that relinquished server would be added to the pool of virtual servers that are available for re allocation to a different administrative group.)

It would have been obvious to one with ordinary skill in the art to combine the method as disclosed in Watt and MSDN with the de-allocating method as disclosed in Sheets because they disclose methods that operate very similarly, but the de-allocation was simply not addressed in Watt and MSDN, but is a natural extension of Watt and MSDN. By moving the de-allocated copy into the pool, the server is now marked available for future use when it is needed. It is for this reason that one of ordinary skill in the art would have been motivated to include de-allocating the read-only copy of the read-only data portion of the selected master image from the server to which the read-only copy was allocated when the server is de-allocated from the system user; and de-allocating the writable data volume of the writable data portion of the selected master storage image that was allocated to the de-allocated server.

Claim 11:

Watt and MSDN discloses a method substantially as claimed.

Watt and MSDN do not explicitly disclose “de-allocating the writable data volume includes the steps of: assigning the de-allocated writable data volume to a pool of de-allocated

writable data volumes; and scrubbing any writable data volumes assigned to the pool of de-allocated writable data volumes asynchronously from the step of de-allocating the writable data volume.”

However, Sheets suggests “de-allocating the writable data volume includes the steps of: assigning the de-allocated writable data volume to a pool of de-allocated writable data volumes; and scrubbing any writable data volumes assigned to the pool of de-allocated writable data volumes asynchronously from the step of de-allocating the writable data volume” [column 18, lines 41-45 discloses conversely, if the dispatch module determines that an agency group can relinquish one of its servers, that relinquished server would be added to the pool of virtual servers that are available for re allocation to a different administrative group. Further disclosing column 15, lines 8-14 one of the significant advantages of the present invention is that the process of reconfiguring servers from one administrative group to a second administrative group will wipe clean all of the state associated with a particular customer account for the first administrative group from the reallocated server before that server is brought into service as part of the second administrative group.]

It would have been obvious to one with ordinary skill in the art to combine the teachings of Watt and MSDN with the disclosure in Sheets by adding the scrubbing method to enhance the security of sharing the data volumes between different users. It is for this reason that one of ordinary skill in the art would have been motivated to have the step of de-allocating the writable data volume include the steps of: assigning the de-allocated writable data volume to a pool of de-allocated writable data volumes; and scrubbing any writable data volumes assigned to the pool of

de-allocated writable data volumes asynchronously from the step of de-allocating the writable data volume.

Claim 21-22:

Regarding claim 21 and 22, Watt and MSDN in view of Sheets disclose the storage area network as cited above for claims 10 and 11 respectively.

Response to Arguments

8. Applicant's arguments with respect to claim 3/7/08 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's mainly assert the following directed towards the prior cited references:

A. Regarding the rejection directed towards Watt and Sheets. Applicant's assert pages 5-10, Examiner has not presented a convincing line of reasoning as to why an artisan would have found the subject matter of claims 1-7 and 12-18 to have been obvious in light of the teachings of Watt and Sheets. In particular asserting on page 7, that the major and minor premise does not follow the conclusion and thereby suggesting that the cited references of claims 1-7 and 12-18 are non-combinable and therefore do not teach by the cited references. That on page 8, the examiner mischaracterizes the disclosure of the Sheets at col. 8-17 by morphing the term reconfiguring to the term reconfiguring. That there is

nothing in the cited portions of Sheets referring to "pre-configuring." And finally page 11, improper hindsight reasoning.

In response, the examiner respectfully disagrees that the two cited references cannot be combined, and that the conclusions are improper. The statement "Watt suggests configuring images associated with a user" and "Sheets suggests pre-configuring at least one identified server image with data and state information" just further demonstrate how inter-related Watts and Sheets are.

As to the final statements, "It would have been obvious to apply Sheets disclosure to Watts to improve security by keeping the data separate from each user, and further to provide a method of indicating states of servers in order to improve allocation techniques. Therefore, improving performance of server allocation as a whole, and further improving security as the unique data can be kept separate by precluding intentional or unintentional access to data between different customer accounts." Both Sheets and Watt are directed to allocation of servers. However, it was found that Watt did not explicitly disclose pre-configuring at least one identified server image with data and state information. One of the reasons why Sheets uses a reconfiguring allocation technique is to re-use a server. This is clearly stated in Sheets col. 15 lines 8-17, reconfiguring servers from one administrative group to a second administrative group.

Furthermore, in reconfiguring the server for the second admin group from a first admin group, Sheets must pre-configure the server for the second admin group. Therefore, the asserted "morphing the term 're-configuring' to the term 'pre-configuring'" is disagreed. By utilizing Watt in conjunction with Sheets, Watt inherits the benefits of reconfiguring provided in Sheets.

Therefore, improving security by keeping the data separate from each user, and further to provide a method of indicating states of servers in order to improve allocation techniques would be proper rationale for combining Watt with Sheets, as these are some of the benefits of Sheets when reconfiguring the servers.

In regards to applicant's assertion directed towards hindsight page 10. A person of ordinary skill would be a person of ordinary skill in the art at the time the invention was made. In regards, to establishing the knowledge on which the examiner relies was not gleaned only from Applicant's disclosure is disclosed in the above reference. Sheets discloses col. 15 lines 15-17, this provides a natural and very efficient security mechanism for precluding intentional or unintentional access to data between different customer accounts. Unless a server 46 or 46' is a member of a given administrative group, there is no way for that server to have access to the data or information for a different administrative group.

Lastly, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it was shown that the references are within applicant's same field of endeavor.

For the above reasons, the rejection is maintained.

B. In regards to the rejection based on Watt and Huan pages 11-16.

In response, this is moot.

Conclusion

10. The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924.

The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/M. D. P./
Examiner, Art Unit 2167

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit
2167

Application/Control Number: 10/673,755
Art Unit: 2167

Page 29